# **Alaska Telephone Association**

Ed Cushing President 201 E. 56<sup>th</sup> Avenue, Suite 114 Anchorage, AK 99518 (907) 563-4000 www.alaskatel.org Christine O'Connor Executive Director

December 14, 2016

Ms. Marlene Dortch Secretary Federal Communications Commission 445 12<sup>th</sup> Street, SW Room TW-A325 Washington, DC 20554

RE: Ex parte filing in WC Docket No. 16-271

Dear Ms. Dortch:

Alaska Telephone Association member companies submit additional information in the attached performance obligations detailing improvements in mobile broadband service which will be accomplished under the provisions of the Alaska Plan Order.

Pursuant to Section 1.1206 of the Commission's rules, this ex parte letter is being filed via ECFS in WC Docket 16-271.

Respectfully submitted,

*Via ECFS 12/14/2016* 

Christine O'Connor Executive Director

cc: Peter Trachtenberg Matthew Warner

#### **ASTAC Wireless**

	Note 1				Note 2							Note 2				
Middle Mile	Population 2010 Census	Spectrum Codes (477 Code)	Population Served 12/31/15	% Base Population Served 12/31/15	Technology Of Transmission (477 Code)	Minimum Expected Upload/ Download Speeds	5 Year Base Population Served	5 Year % Total Population Served	Technology Of	Minimum Expected Upload/ Download Speeds	10 Year Total Base Population Served	10 Year % Population Served	Technology Of Transmission (477 Code)	Minimum Expected Upload/ Download Speeds		
Satellite*	6427	91	6427	100%	86	32/32 Kbps	6427	100%	81	768/256 Kbps	6427	100%	81	768/256 Kbps		
		91	402	100%	86	32/32 Kbps	402	100%	81	3.0/1.0 Mbps	402	100%	81	3.0/1.0 Mbps		
Microwave/Fiber**	402	94					402	100%	81	3.0/1.0 Mbps	402	100%	81	3.0/1.0 Mbps		
		90									402	100%	81	3.0/1.0 Mbps		
Fiber***		91														
		94														
		90														

Note 1: Population per 2010 Census in service area. Excludes population served by AT&T and/or Verizon at 4G LTE using their infrastructure. Excludes Prudhoe Bay, AK pops as 100% of reported "residents" are oilfield workers (shift)

Note 2: Microwave/Fiber middle mile markets assumes use of multiple spectrums to deliver services. Year one is 2017.

Sources: U.S. Census Bureau, Population Estimates Program (PEP), Updated annually. http://www.census.gov/popest/. U.S. Census Bureau, 2010 Census of Population,

P94-171 Redistricting Data File. Updated every 10 years. http://factfinder.census.gov

Codes: https://transition.fcc.gov/form477/477inst.pdf

<sup>\*</sup> Today, the limiting factor for broadband speed with HSPA+ technology in a satellite fed middle mile market is the cost of that transport, not the technology itself. If ASTAC's economics change in the future we will update our obligations.

<sup>\*\*</sup> Today, the limiting factor for broadband speed with HSPA+ technology in a Microwave/Fiber fed middle mile market (Nuiqsut) is the cost of that transport, not the technology itself. Any future improvement in middle mile costs will potentially allow for improved economics supporting the transition to LTE.

<sup>\*\*\*</sup> Quintillion Subsea Fiber project is ongoing but those possible impacts are excluded from this forecast until it is in service.

# **Bristol Bay Cellular Partnership**

	Note 1		Note 2							Note 4				Note 4
Middle Mile	Population <b>2010</b> Census	Codes	Population Served 12/31/2015	% Base Population Served 12/31/15	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds	5 Year Base Population Served	5 Year % Total Population Served	Technology Of Transmission (477 Code)	Expected	10 Year Base Population Served	10 Year % Population Served	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds
Satellite														
	4530	91	4530	100%	86	N/A	4530	100%	83	N/A	4530	100%	83	N/A
Microwave/Fiber														
Fiber														

Note 1: Population per 2010 Census in service area. Excludes population served by AT&T and/or Verizon at 4G LTE using their infrastructure.

Note 2: Percentage of population able to be served at benchmark speeds as of 12/31/2015.

Note 3: Year 1 is 2017

Note 4: Bristol Bay Cellular Partnership is building an LTE network but is constrained from offering mobile broadband due to middle mile cost and availability. If affordable middle mile becomes available, BBCP will be able to deliver at least 4Mbps/1Mbps speeds by Year 5 and 10Mbps/1Mbps by Year 10.

Corrected Year 5 and year 10 Technology of Transmission Updated population info 12-13-16 from 2010 Census Data

#### Alaska Plan Performance Obligation

## **OTZ Wireless**

Note 1 Note 2								Note 5							
N	Middle Mile	Base Population 2010 Census	Spectrum Codes (477 Code)	Base Population Served 12/31/15	% Base Population Served 12/31/15	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds	5 Year Base Population Served	5 Year % Total Population Served	Technology Of Transmission (477 Code)	Expected	10 Year Total Base Population Served	10 Year % Population Served	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds
			91	4,712	62.6%	86	No Data available	0 (Note 4)							
S	Satellite	7,523	91					4,317	57.4%	83	2Mb/0.5Mb	4,317	57.4%	83	2Mb/0.5Mb
L															
L	-														
N	Microwave														
H															
r	Fiber		0.1	0				2.20(.0) . (2)	1000/	02	43/01 /43/01	2206 (N + 6)	1000/	02	4341 (4341
F			91	0				3,206 (Note 6)	100%	83	4Mb/1Mb	3,206 (Note 6)	100%	83	4Mb/1Mb

Note 1: Population per 2010 Census in service area. Excludes population served by AT&T and/or Verizon at 4G LTE using their infrastructure.

Note 2: Population served at benchmark speeds as of 12/31/15. The difference between Base Population 2010 Census and Base Population Served as of 12/31/2015 is the unserved population as of that date.

Note 3: Year 1 is 2017.

Note 4: OTZ plans on sunsetting GSM voice-only service.

Note 5: Kotzebue will be the only location served with fiber backhaul, all other locations will be served with satellite backhaul.

## Alaska Infrastructure Fund Performance Obligations

# TelAlaska Cellular, Inc.

Note 1 Note 2

Middle Mile	Population 2010 Census	Spectrum Codes (477 Code)	Population Served 12/31/14	% Base Population Served 12/31/14	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds	5 Year Base Population Served	5 Year % Total Population Served	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds	10 Year Base Population Served	10 Year % Population Served	Technology Of Transmission (477 Code)	Minimum Expected Download/ Upload Speeds
Satellite	15,198	91	11,702	77%	86	256 Kbps/ 256 Kbps	6,079	40%	86	256 Kbps/ 256 Kbps	3,040	20%	86	256 Kbps/ 256 Kbps
		91	2,888	19%	80	1.0 Mbps/ 128 Kbps	4,863	32%	80	1.0 Mbps/ 128 Kbps	6,231	41%	80	1.0 Mbps/ 128 Kbps
		91				1.0 Mbps/ 128 Kbps	3,800	25%	83	1.0 Mbps/ 128 Kbps	5,623	37%	83	1.0 Mbps/ 128 Kbps
Microwave														
Fiber														

Note 1: Population per 2010 Census in service area. Excludes population served by AT&T and/or Verizon at 4G LTE using their infrastructure.

Note 2: Percentage of population served at benchmark speeds as of 12/31/14.

Note 3: Year 1 is 2017

TelAlaska Cellular, Inc. (TCI) service area is 100% served by satellite middle mile. The physical limitations of satellite middle mile do not allow for latency below 100 milliseconds. In addition, cost factors do not allow for data allowance at or above 150,000 Mbps. Upload and download speeds are also limited due to the high cost of satellite bandwidth.